

SC-210

User's Manual

(D/N: 250-0278-E Rev. 1.0)

Minolta-QMS, Inc

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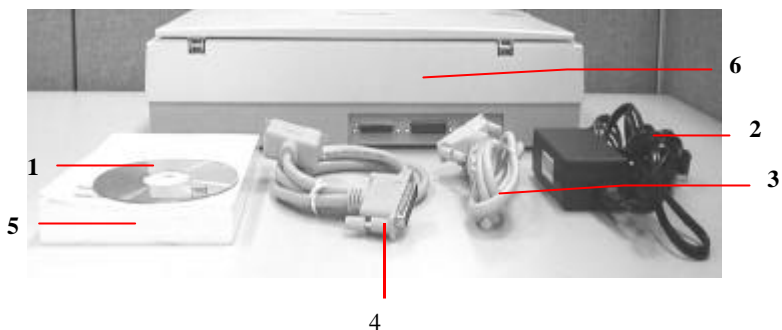
1. INTRODUCTION

Congratulations on your purchase of the Minolta-QMS SC-210.

The SC-210 produces better printing quality and is free from maintenance, compared with traditional copy machines. Its high copy/scan quality, maintenance-free operation and affordability make SC-210 the best convenience copier solution for office.

The following sections introduce the unpacking, hardware and software installation, the operation, and maintenance information to you. Please spend a few minutes reading through them to keep quality scanning result possible.

Figure 1-1 shows how the SC-210 is packed. Please check all the items against Figure 1-1. If there is any missing or damaged, please contact your nearest dealer immediately for the replacement.



1. Utilities & Documentation CD
2. Power Adapter
3. Parallel Cable for Computer Connection
4. Parallel Cable for Printer Connection
5. Quick Installation Guide
6. SC-210

Figure 1-1 SC-210 Packing

2. SC-210 INSTALLATION

2.1 PRECAUTIONS

- Keep the SC-210 out of direct sunlight. Direct exposure to the sun or excessive heat may cause damage to the unit.
- Do not install the SC-210 in a humid or dusty place.
- Be sure to use the proper AC power source.
- Place the SC-210 securely on an even, flat surface. Tilted or uneven surfaces may cause mechanical or paper-feeding problems.
- Retain the SC-210 box and packing materials for shipping purposes.

2.2 UNLOCKING THE SC-210

To protect the scanning head from damage during shipment, the SC-210 is designed with a lock switch beneath the main unit. Therefore, before using the SC-210, it is required to unlock SC-210 by moving the lock switch to the *Use* position.(See Figure 2-1)



1. "Shipping" Position 2. "Use" Position

Figure 2-1 Unlocking the SC-210

2.3 CONNECTING THE CABLE

2.3.1 CONNECTING SC-210 TO A PRINTER TO WORK AS A COPIER

Connect the power cable and signal cable as shown below.

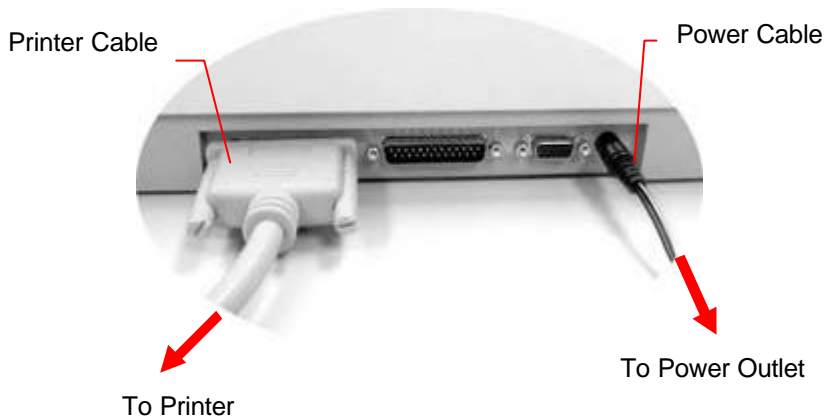


Figure 2-2 Connecting SC-210 to a printer

2.3.2 CONNECTING SC-210 TO A WINDOWS WORKSTATION TO WORK AS A SCANNER

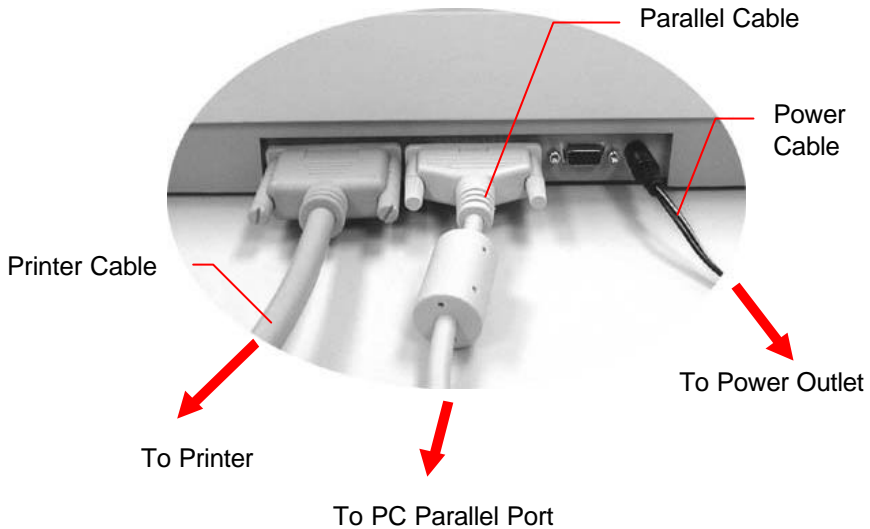
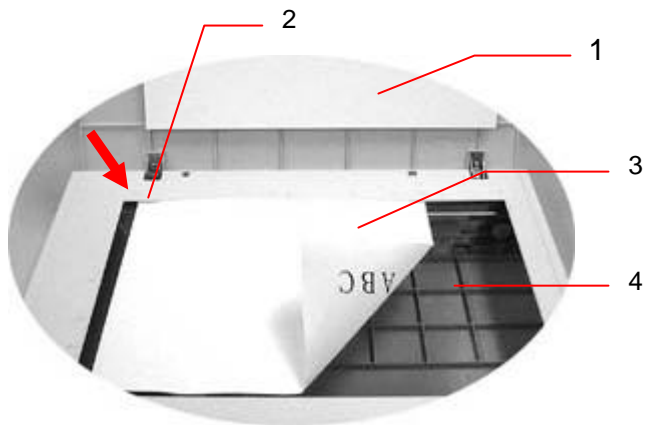


Figure 2-3 SC-210 Cable Connection

2.4 DOCUMENT PLACEMENT

As shown in Figure 2-4, place the document on the glass face (text) down.



1. Document Cover
2. Home Position Mark
3. Document
4. Document Glass

Figure 2.4 Document Placement

3. USING SC-210 AS A COPIER

To use the SC-210 as a copier, it is recommended that you follow these tips:

To use other settings than the one displayed in the Message Display window, simply press the button again for that setting to select other options.

Note:

- (1). An item message in the Message Display Windows ending with a “* “ means the last setting.
- (2). The default settings are: A4, Normal Print Quality, 100% ratio, 1 copy.

PRINTER MEMORY

To realize the full functionality of the SC-210, it is recommended to install adequate memory in your laser printer. If you want to print your document using Quality mode - 600 dpi as your Copy Quality mode, you may need to add more RAM for your printer as using this feature requires more processing time and memory.

See the following chart for printer memory recommendations.

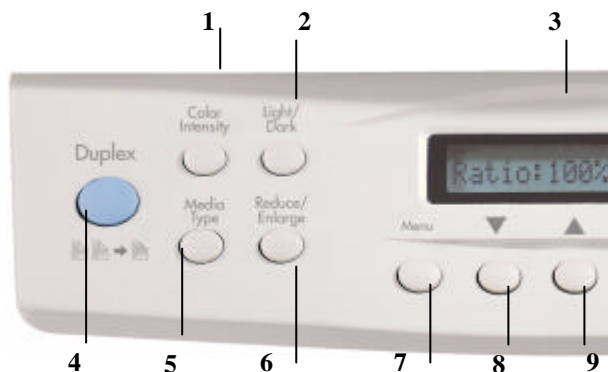
It is strongly recommended that you refer to the following table to ensure a successful color copy.

Copy Quality	Document Size	Min. Printer Memory
Normal	Letter Size	16 MB
	Legal Size	32 MB
Quality	Letter Size	32 MB
	Legal Size	64 MB

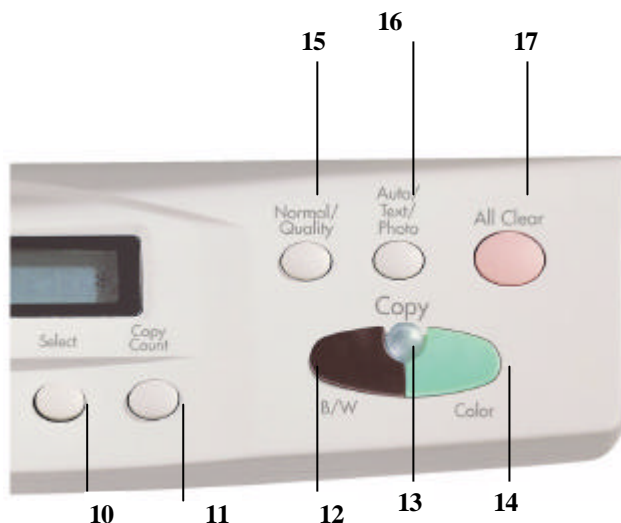
If there is not enough memory in your printer, you may probably encounter the following results:

1. The printer does not print.
2. The print quality is bad.

3.1 THE CONTROL PANEL



1. **Color Intensity:** Intensify the image copied or scanned.
Increase level of color intensity by the (▲) button.
Decrease level of color intensity by the (▼) button.
2. **Light/Dark:** Lighten or darken your image.
Increase level of brightness or darkness by the (▲) button.
Decrease level of brightness or darkness by the (▼) button.
3. **Message Display window:** Display current settings.
4. **Duplex:** Press to automatically duplex print.
5. **Media Type:** Press to select your output paper type, eg. Plain paper, Transparency, or Glossy.
6. **Reduce/Enlarge:** Reduce, enlarge or auto zoom your original document.
Press to select the preset ratios: 100%, 115%, 122%, 141%, 200%, 400%, Auto, 25%, 50%, and 86%. Choose your desired ratio or adjust the ratio in 1% increment by the (▲) or (▼) button.
Auto: Automatically scale your original document to fit your output paper.
7. **Menu:** Select paper size, printer type, Mirror function, power-saving interval, Duplex, Fit-to-A3, Input Tray, or Output Bin, depending on various printer models.
8. **▲** : Go to the previous item displayed in the Message Display window or increase the value of the numeric entries.
9. **▼** : Go to the next item displayed in the Message Display window or decrease the value of the numeric entries.



10. **Select:** Press to determine a printer to be used after updating the printer setting on the Menu button.
(note: It is not necessary to press the Select button for other settings on the Menu button.)
11. **Copy Count:** Choose the number of copies from 1 to 99. Increase the value of the numeric entries by the (▲) button or decrease the value by the (▼) button.
12. **Copy(B/W):** Press to start a black-and-white copy
13. **Power/Copy LED:** The LED indicator turns green when power is on and turns flashing during copying.
14. **Copy(Color):** Press to start a color copy.
15. **Normal/Quality:** Select your Copy quality: **Normal** (300 dpi), or **Quality** (600 dpi).
16. **Auto/Text/Photo:** Press to respectively concentrate on photo, text, or auto copying.
17. **All Clear:** Clear your current settings and return to the default settings.

Note: If the SC-210 has been idle for 5 minutes, all current settings, except Printer Select, Energy Saver Mode, and Paper Size, will automatically return to the default settings.

3.2 BEFORE MAKING COPIES

The Minolta-QMS SC-210 supports multiple paper sizes from A4/letter to legal on the flatbed and through the Automatic Document Feeder (ADF). The SC-210 also supports enlarging a copy (from letter/legal/A4) to larger sizes (such as A3 and ledger) based upon the printer selected. Check or select the paper size to match your paper supply to ensure smooth operations.

To check or select paper size,

1. Press Menu button and select "Size" item. The Message Window displays "A4" as a default setting. If your current paper supply is A4 size, you can skip the following steps. Otherwise, please do the following steps.
2. Keep on pushing ▲ or ▼ button until the desired paper size appears. When the desired paper size message is shown in Message Display window, this update paper-size setting is done. In order to help you distinguish every new setting you make from the other preset settings, press Select button and a " * " sign will appear on the right-hand side of the displayed message.
 - For example, if you want Letter as your paper size, press the Select button when the "Size: Letter" appears in Message Display window. A "*" sign shown next to the displayed message on the right side to distinguish the desired paper size, Letter, from the others.

➤ Note:

Each time when you press All Clear button, the SC-210, the SC-210 automatically returns to the factory default setting. As a result, you have to reset any factory default settings you may have set prior to pressing "All Clear".

3.3 MAKING SIMPLE COPIES

The Operating Steps:

1. Place your original face-down on the document glass.
2. Press the Copy button either of Color or of Black and White. The Message Window displays "Copying...", and the Ready LED is flashing.
3. Within a few moments, the copying is done. The Message Window then displays "1 Copy @100%" and the Ready LED is now steadily on until next task.

3.4 MAKING COPIES WITH COPY FEATURES

3.4.1 MIRROR FUNCTION

This function allows you to horizontally flip the copied image as if the image were reflected in a mirror.

The Operating Steps

1. Place your document face-down on the document glass.
2. Keep on pressing Menu button till the message, "Mirror: off", appears.
3. Press the ▲ or ▼ button to get the message, "Mirror: on".
4. Press the Copy button. The printout shows the original image is flipped horizontally as if it were reflected in a mirror.



Mirror function is off



Mirror function is on

3.4.2 ENLARGING OR REDUCING YOUR ORIGINAL

Like most copiers, the SC-210 also features auto enlargement/reduction function to resize your original.

The Operating Steps:

1. Place your document face-down on the document glass.
2. Press the “Reduce/Enlarge” button, the Message Window displays “Ratio:100%”.
3. Repress the button to see more options. For example, if you need 150% enlargement, select “141%” then press the “▲” button to increase the percentage to 150 in 1% increment.
4. Press the Copy button. And then the printout shows enlargement of 150% of your original.



Ratio:100%



Ratio: 150%

➤ Note:

- Another option to reduce your original is to firstly repeat the enlargement or reduction steps 1 to 3 and then press the “▼” button to decrease the percentage in 1% increment.
- The maximum magnification rate is 400% while the minimum reduction rate is 25%.

3.4.3 AUTO ZOOMING YOUR ORIGINAL

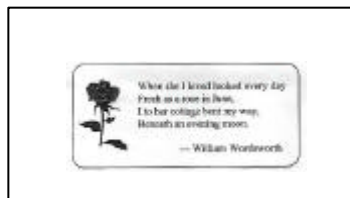
Auto Zoom is a convenient function to resize your original without giving additional thought to whether the magnification or reduction would be larger than the existing paper size set on the SC-210.

The Operating Steps:

1. Repeat the above Enlargement Step 1 & 2.
2. Repress the “Enlarge/Reduce” button until the Message Window displays “Auto”.
3. Press the Copy button. The printout shows your original automatically scales to your paper size.



Before Auto Zoom (Ratio:100%)



After Auto Zoom

3.4.4 CHANGING YOUR COPY DENSITY

Copy density refers to the degree of darkness that the Minolta-QMS SC-210 has reproduced. There are times when your original is unsatisfactorily darker or lighter. Use the density feature to compensate for an unsatisfactory original.

The Operating Steps:

1. Place your original face down on the document glass.
2. Press the "Lighter/Darker" button. The Message Window displays the default degree of darkness.
3. Repress the "Lighter/Darker" button to select one of the other levels. Or you may press the "▲" to increase the level, press the "▼" button to decrease the level.
4. Press the Copy button. Your printout shows the darkness or brightness has been compensated.

3.4.5 CHANGING COLOR INTENSITY

Color intensity refers to the saturation of color reproduced by SC-210. There are times when the saturation of the original image doesn't fit your preference. Use this option to increase or decrease the color saturation.

The Operating Steps:

1. Place your original face-down on the document glass.
2. Press the "Color Intensity" button. The Message Window displays the default saturation.
3. Repress the "Color Intensity" button to select one of the other levels. Or you may press the "▲" to increase the level, press the "▼" button to decrease the level.

4. Press the Copy button.

3.4.6 CHOOSING YOUR COPY QUANTITY

The Operating Steps:

1. Place your original face-down on the document glass.
2. The default copy count is 1. If you need to make 3 copies, for example, press the "Copy Count" button and the Message Window displays "2 copy @100%".
3. Repress the "Copy Count" button and the Message Window displays "3 copy ...".
4. Press the Copy button. 3 copies will print.

➤ Note:

- Another option to change your copy quantity is to press the "▲" button to increase the number or the "▼" button to decrease the number.
- The maximum copy quantity is 99.

3.4.7 ENHANCING YOUR COPY QUALITY

The Minolta-QMS SC-210 provides “Quality mode” option to improve your copy quality. This is particularly useful when the original has a photograph. Quality mode allows your printout to reveal more image(photo) details using a higher resolution.

The Operating Steps:

1. Place your document face-down on the document glass.
2. Press the “Normal/Quality” button. The Message Window displays “Normal mode”.
3. Repress the “Normal/Quality” button and the Message Window displays “Quality mode”.
4. Press the Copy button. The copying begins processing with the Quality mode.

See following photo/text reproduction between normal copier versus the Minolta-QMS SC-210 in quality mode.



Make copies with a
normal copier



Make copies with
a SC-210 in quality mode

➤ Note:

- To proceed copies using Quality Mode, make sure your printer has adequate memory as this requires more processing time.
- Copies made using QualityMode take longer to print than copies made utilizing Normal Mode.

3.4.8 ORIGINAL CONTENT

AUTO/TEXT/PHOTO COPIES

Content can vary widely. The SC-210 can be configured to maximize the copy operation based upon the content of the original.

If the content of the original is a photograph images only or has photograph images with a little text on it, select the Photo function to get a photo-concentrated image copy.

The Text function optimizes the copy if the original is mostly text.

However, if the proportion of the photo image is almost the same as that of text in the original to be copied, it is recommended to use the Auto function from Auto/Text/Photo button in order to get the most optimal printout with photo and text mixed.

The Operating Steps:

1. Place your document face-down on the document glass.
2. Keep on pressing “Auto/Text/Photo” button to select any one of these 3 document-type functions, called Photo, Text, and Auto.
3. Press the Copy button, and the printout shows the best reproduction with the document-type concentration selected.

3.4.9 MAKING COPIES OF A 3D OBJECT

The Minolta-QMS SC-210 solution improves your copy reproduction significantly and even makes 3D object copies amazingly clear.

The Operating Steps:

1. Place your 3D object on the document glass.
2. Press the "Normal/Quality" button and the Message Window displays "Normal mode".
3. Repress the "Normal/Quality" and the Message Window displays "Quality mode".
4. Press the Copy button. Your 3D object copy is done.



The 3D copy
using a normal copier



The 3D copy
using the Minolta-QMS SC-210

3.4.10 AUTOMATIC POWER SAVING

The SC-210 features automatic power saving without unplugging the power cable. If you have not used the SC-210 over a selected power-saving interval (15 minutes, 2 hours, or 4 hours), it automatically turns into power saving status.

To resume the ready status, press any one of the buttons on the Control Panel. The Message Window displays “Warming up...” and then “1 Copy @100%”, the ready status. The Ready LED now turns steadily on.

The SC-210 can also have the power saving mode disabled entirely.

To change the SC-210 power saving mode, press the Menu button and select Sleep. Using the “▲” button or the “▼” button, display the setting that you want to select. Once your desired choice is displayed, press the Select button to select your choice.

4. USING SC-210 AS A SCANNER

To operate the SC-210 at optimum speed, the following minimum requirements are recommended:

- IBM compatible PC 386/486, Pentium or later;
- Microsoft Windows 95/98/Me, Windows NT;
- One printer port available: ECP or EPP (enhanced parallel port);
- 20 Megabytes of available hard disk space for installation;
- 16 Megabytes of RAM (32 Megabytes or higher recommended);
- A video graphics array (VGA) monitor;
- A Microsoft Windows-compatible pointing device (e.g., mouse);
- A CD-ROM drive.

4.1 INSTALLATION PROCEDURE

Installation procedures of the SC-210 driver and utilities are as follows:

1. Start Windows 98/95/Me, or NT 4/Windows 2000.
2. Insert the Utilities and Documentation CD-ROM into your CD ROM drive.
3. The CD-ROM will autolaunch on most systems. However, if you system does not support autolaunching CD-ROMs, press the Start button, choose RUN, type d:\driver\SC-210.exe (d: the CD-ROM drive in use), and then click OK. (See Figure 3-1,3-2)
4. Follow the on-screen instructions to complete the installation.

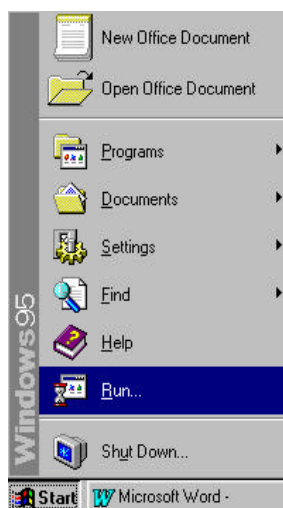


Fig. 3.1



Fig. 3.2

4.2 DOWNLOADING PRINTER COLOR TABLE

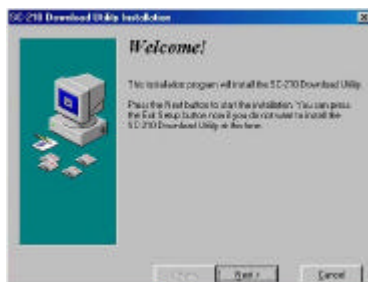
The SC-210 will support up to four color tables simultaneously and will have the latest color tables already installed for the following printers: magicolor 2200, magicolor 330, magicolor 6100, and the magicolor 2 Desklaser. If you are connecting the SC-210 to the magicolor 2 or 2+, you will need to download the printer color table for the magicolor 2/2+.

To Install the Download Utility to Your Computer,

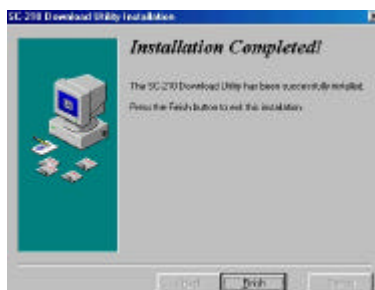
- 1). Turn off your SC-210, and your computer.
- 2). Connect the SC-210 to your computer by plugging one end of the supplied cable to the parallel port of the SC-210 and the other end to the printer port of your computer.
- 3). Turn on the SC-210 and your computer.
- 4). Insert the supplied CD-ROM into your CD-ROM drive and double-click the “**Color Table Download Kit.exe**” from the “**Color Table Download Kit**” folder . (If your CD automatically launches, select the menu option “**SC-210 Color Table Download Utility**”).



- 5). The **Important Information** screen appears. Click Continue.
- 6). The **Welcome** screen appears. Click the **Next** button and follow the on-screen instructions to install the **SC-210 Color Table Download Utility** on your computer.



- 7). Click the **Finish** button when the Finish message appears to complete the installation.



8). (A) Working with Win 98/95/Me :

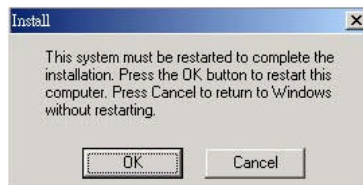
Now, the Start program screen appears as follows.



Click the OK button on the Start program screen to automatically download the color tables.

(B) Working with Win 2000/NT :

Now, the Install screen appears as follows.



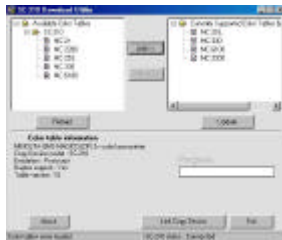
- (1) Click the OK button to restart the computer connected to SC-210.
- (2) After restarting the computer, press Start>Programs>SC-210 Download Utility > SC-210 Download Utility.

(3) SC-210 Download Utility screen appears, as shown below.

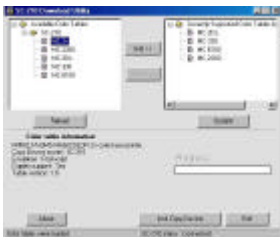


4.3 TO CUSTOMIZE COLOR TABLES ON SC-210,

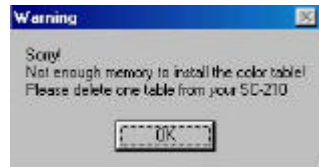
- 1). Press Start>Programs> SC-210 Download Utility> SC-210 Download Utility . SC-210 Download Utility screen appears as below.



- 2). Choose the brand name and model name of your new printer from the left side and click the "Add" button to insert the model to the right side.



- 3). If you attempt to load more than 4 color tables to the SC-210, the following warning message appears.

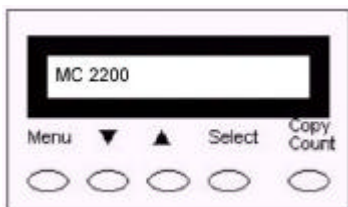


Choose one printer model from the right side and click the **"Delete"** button to delete one table and free some memory.

- 4). If the warning message does not appear, choose your new printer model from the right side and click the **"Update"** button to download the color table to your Color Copy Device.



- 5). When the status bar shows 100%, this means you have successfully downloaded the color table to SC-210.
- 6). Connect the SC-210 to your printer and turn on the printer.
- 7). On the Control Panel of your SC-210, press the "Menu" button until **Printer Select** is visible. Press the **Select** key. Use the "▼" or "▲" button until the printer model that the SC-210 will be connected to is visible. Press the **Select** key.



4.4 UNINSTALL THE SC-210 DRIVER

You can uninstall the SC-210 driver by selecting Start>Programs>Minolta-QMS SC-210 and clicking the *Uninstall* driver icon from SC-210 group.

5 SCANNER OPERATION & DOCUMENT PRINTING

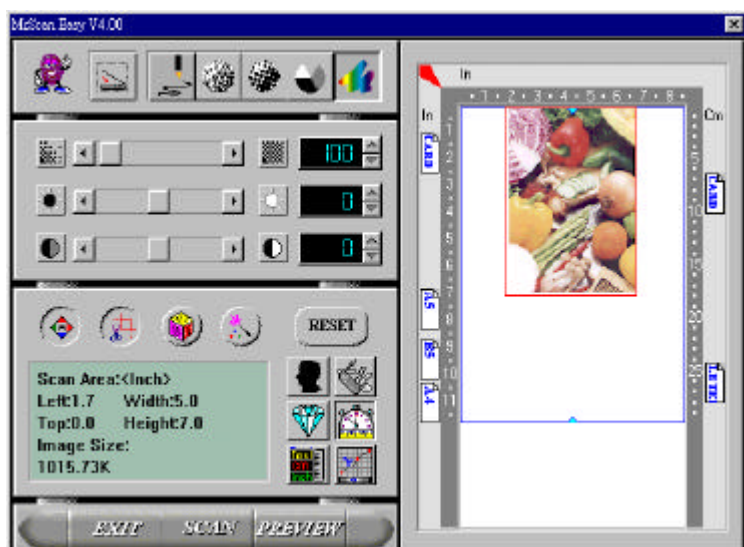
Scanning Images from within an Application (TWAIN)

1. Open your application and choose **Select Source** from the File menu. If the *Select Source* menu options are not available from the File menu, see the user guide of your application to learn how the TWAIN link is used.
2. A dialog box appears containing the different TWAIN sources that you can choose to bring an image into your application.
3. Select **SC-210/32 Vx.xx** as the source.



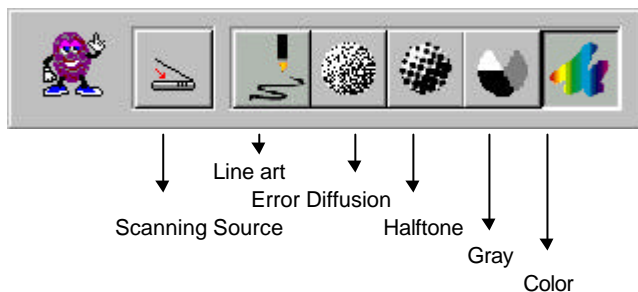
4. If you have used the dialog box to select a different source, you will need to select **SC-210** as the source again before you can reuse the SC-210.
5. Place the image to be scanned face down on the glass.
6. From the File menu, select *Acquire*.
7. The TWAIN user interface will pop up on the screen. Click on the **Preview** or **Scan** button to get the image.

The TWAIN user interface:



5.1 IMAGE TYPE

The SC-210 provides five image types as explained below:



Scanning Source

Two scanning sources are provided- flatbed and ADF.

Line art

Line art presents the image in black and white only with no intermediate shades of gray in between.

Halftone

In addition to the black and white display, Halftone can present a somehow gray shade of image by using different size of dots.

Error Diffusion

While taking up a minimum storage space, error diffusion gives good image texture and excellent image details.

Gray (Internal 4096 levels of gray scale)

12-bit Gray presents 4096 shades of gray in an image.

Color (Internal 68.7 billion colors)

The 36-bit True Color internally presents 68.7 billion-color levels with much more tonal range and color-image details.

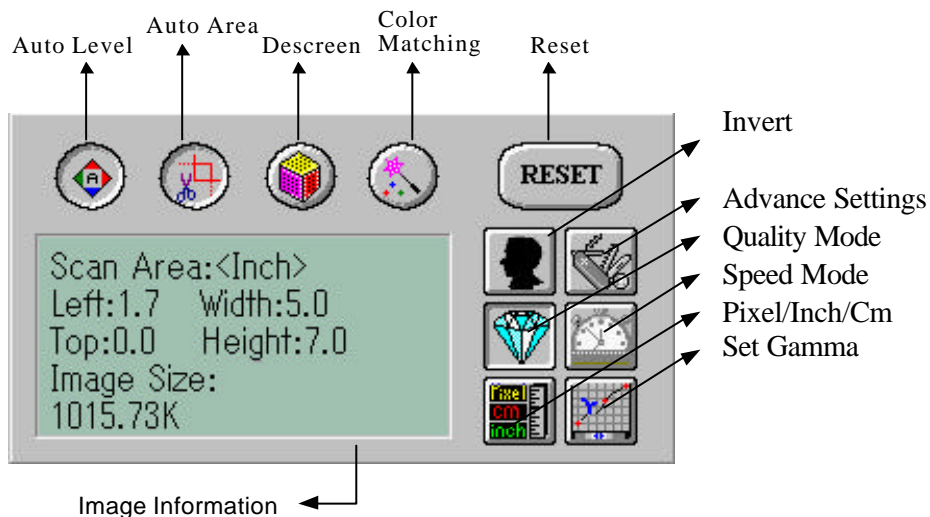
5.2 SCANNING PARAMETERS & IMAGE CONTROL



Resolution: The number of dpi (dots per inch) that the SC-210 uses for a *scan*. Usually the greater the number, the higher the resolution. Yet up to a certain level, the resolution will not be visually increased but the disk space will be increased.

Brightness: Adjusts the lightness or darkness of an image. The higher the value for brightness, the brighter the image will be.

Contrast: Adjusts the range between the darkest and the lightest shades in the image. The higher the value for contrast, the bigger the different gray scales.



Auto Level: Optimizes the scanned image.

Auto Area: Automatically sets the whole document as the scan area, no matter what its size.

Descreen: Eliminates the Moire patterns commonly found in printed matter.



Before descreen



After descreen

Color Matching:

Adjusts the color quality of the image to make it close to the original. This function uses default parameters to adjust the image.

Reset: Resets the scanning parameters you set.

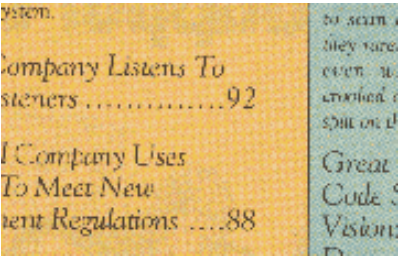
Invert: The invert command reverses the brightness and the color in the image. For color images, each pixel will be changed into its complementary color at the command of *Invert*.

Advance Settings:

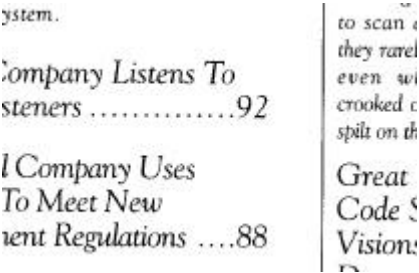
The Advance Settings provide several functions such as Dynamic Background Removal and Color Drop-out. These functions are briefly explained as below:

Dynamic Background Removal (DBR) - Apply exclusively when you need to scan as an Lineart image. The DBR function incorporates a few enhanced options to allow you to remove background color to sharpen your text or drawing.

Original(Color picture)



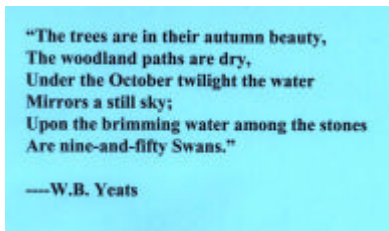
After applying DBR option



Color drop-out - Apply exclusively when you need to scan as a black and white image

The Color drop-out function allows you to remove one of the R(Red), G(Green), or B(Blue) color or to convert all the color data into Neutral Gray. For example, if you want to remove the text or background in blue color, simply check the Blue Channel then the text or background in blue color will be removed. If your original contains various color data, then check the Neutral Gray to retain all the color data in gray. Removing either one of the red, green, or blue color will inadvertently affect the rest color data as every color contains different elements of each of the red, green, and blue channel. See the result below:

Your original with blue color background



After click the B(Blue) channel

"The trees are in their autumn beauty,
The woodland paths are dry,
Under the October twilight the water
Mirrors a still sky;
Upon the brimming water among the stones
Are nine-and-fifty Swans."
—W.B. Yeats

Your original with red watermark

Marketing

ABC Inc. distributes and sells its product worldwide through OEMs/ODMs, and distributors.
As of June 1999, ABC has employed over 21 well trained marketing, sales, and support personnel.

To better serve its customers, ABC has assigned an account manager for each of its OEM/ODM customers. These account managers are responsible for effectively coordinate the outstanding issues in sales, manufacturing, or development and assure the status of each customer's product is properly monitored. Our goal is to achieve and maintain complete customer satisfaction.

After click the R(Red) channel

Marketing

ABC Inc. distributes and sells its product worldwide through OEMs/ODMs, and distributors.
As of June 1999, ABC has employed over 21 well trained marketing, sales, and support personnel.

To better serve its customers, ABC has assigned an account manager for each of its OEM/ODM customers. These account managers are responsible for effectively coordinating the outstanding issues in sales, manufacturing, or development and assuring the status of each customer's product is properly monitored. Our goal is to achieve and maintain complete customer satisfaction.

Quality/Speed Mode:

Users can select the mode to perform scanning according to their own need. Select quality mode scanning if your emphasis is on the quality of the scanned image. Or you can select speed mode scanning if you want to speed up the scanning process.

Pixel/Inch/Cm:

Represents the different measuring systems to be used in each scan.

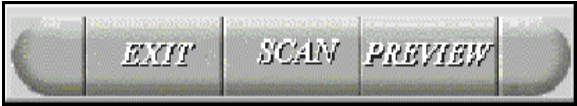
Set Gamma:

Adjusts the midtone of the image yet without losing details of the lightest and the darkest areas at the same time.

Image Information:

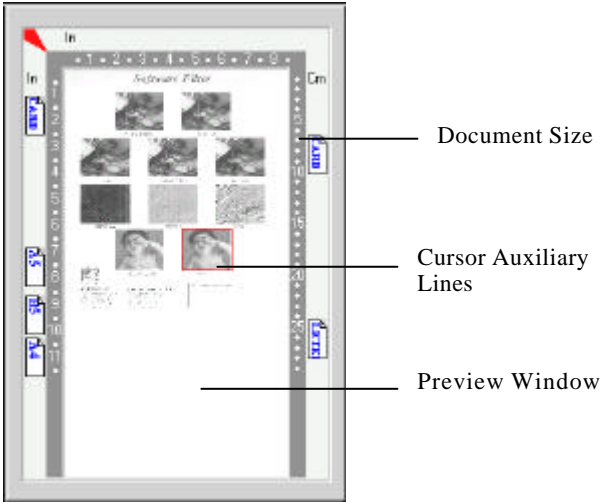
Gives related information of the scanned image.

5.3 SCANNING



- Preview:** Previews your image roughly and allocates the area to be scanned.
- Scan:** Executes the scan action.
- Exit:** Cancels the current job.
- Document Size:** To designate the size of your document, just click on its icon on the margin of the preview window.

As shown in the figure below, in the Preview window, you can define the area to be scanned by dragging the four-cursor auxiliary lines.



5.4 PRINTING

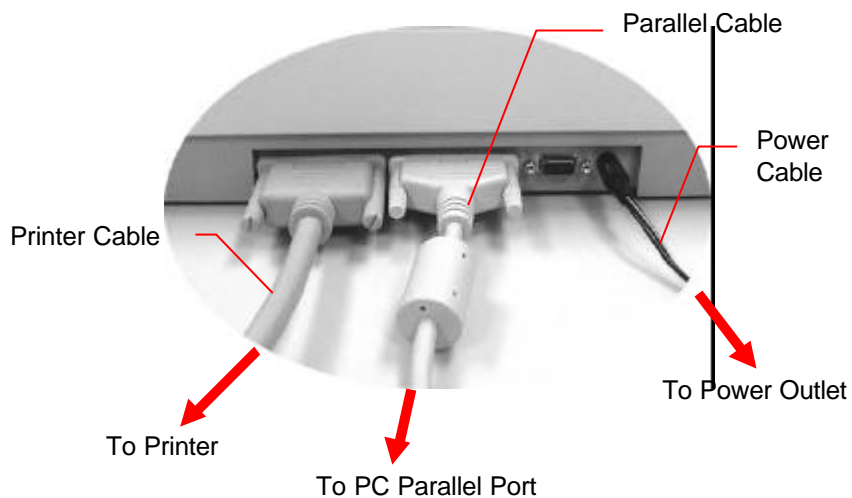


Figure 5.1 SC-210 Cable Connection

Caution:

Do not scan and print at the same time.

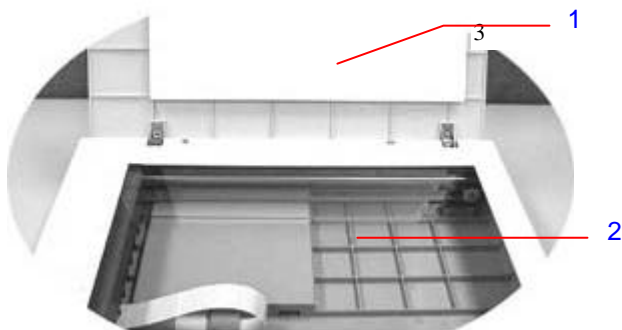
6. MAINTENANCE

Cleaning:

The SC-210 is designed to be maintenance-free. However, it still needs to be cleaned occasionally to ensure optimum image quality and performance.

Procedure

1. Open the document cover as shown in Figure 6-1.
2. Dip a soft clean cloth with isopropyl alcohol (95%).
3. Gently wipe the document glass and the white sheet beneath the document cover to remove the dust or any toner particles.
4. Close the document cover. The SC-210 is now ready for use.



1. Document Cover
2. Document Glass

Figure 6-1 Cleaning

7. TROUBLESHOOTING

If you have any operational problem, please refer to the following troubleshooting hints.

7.1 QUESTIONS AND ANSWERS

Question: Why does the scanned image always come out to be too dark?

Answer: 1) Modify the Gamma setting to 1.8 for your monitor and, when printing, set Gamma to 2.2 for your printer.
2) Use the Brightness setting of the TWAIN user interface to get a brighter image.

Question: The scanning speed of my SC-210 is much slower than that of those installed at other computers. Can I speed it up?

Answer: Set you PC printer port to the ECP or EPP mode from BIOS setting.

Question: The printer does not print the documents. Why?

Answer: Pass-through printing may pose a problem for some printers. It is suggested to add a second printer card for printing purpose, or you may call your authorized local dealer for further support.

Question: Does it take long for the SC-210 to initialize itself?

Answer: If your printer port supports SPP mode only, it takes about two minutes for the SC-210 to initialize itself. If

your printer port supports ECP or EPP mode, the initialization speed is much faster, about 20 seconds.

Question: Why my GDI printer does not work with the SC-210?

Answer: Disable the *Auto Scan* function in the application, then your printer will function in normal working condition.

Question: Why some parallel port devices and software's keypro do not work with the SC-210?

Answer: The SC-210 do support pass-through printing, but the pass-through printing may not work if you connect the parallel port with devices other than printer. Therefore, if you would like to connect some parallel port devices other than printer, please do not connect them to the same parallel port that the SC-210 currently uses. It is suggested to use other parallel ports to connect these devices or keypro. For instance, you can connect the SC-210 to LPT1, and connect other parallel port devices to LPT2. Or you can add a data switch to avoid the problem.

7.2 TECHNICAL SERVICE

Technical support for Minolta-QMS scanner is provided at the Minolta-QMS Technical Assistance Centers. Before you contact us, please prepare the following information for a quick solution:

- Scanner serial & revision number (located on the bottom of the scanner);
- Hardware configuration (e.g., your host CPU type, RAM size, free disk space, display card, interface card);
- The name and version of your scanning software application;
- The version of your scanner driver.
- The model name of your printer.

MINOLTA-QMS INC.

Worldwide Corporate Headquarters

1 Magnum Pass

Mobile, AL 36618

TEL: +1 (334) 633-4300

FAX: +1 (334) 633-4490

Web Site: <http://www.minolta-qms.com>

E-mail: info@minolta-qms.com

Technical Support:

TEL: +1 (877) 778-2687

E-mail: support@Minolta-QMS.com

For all other offices and world wide directories, please visit the corporate web site, www.minolta-qms.com for contact information.

8. SPECIFICATIONS

SC-210 specification

Optical Resolution	600x600dpi
Enhanced Resolution	9600x9600dpi
Copy Area	Max. 8.5" x 14.0" (Legal size)
Copy Features	Zooming from 25%~400% Auto Zooming
Printers Supported	magicolor 2/2+/DL magicolor 2200 magicolor 6100 magicolor 330
Printer Interface	IEEE 1284 (bi-directional) ECP/SPP/EPP
Power Source	100 - 240V, 50 - 60 Hz
Power Consumption	< 20 W
Physical Dimension	477 x 356 x 98mm (18.8" x 14.1" x 3.9")
Weight:	3.9kg (8.5 lbs)

Automatic Document Feeder (ADF) specification

Dimension	448 x 290 x 192 mm
Weight	1.4 kgs
Speed	10 PPM (page per minute) (mono mode)
Paper tray capacity	25 pages
Document size	Max: Legal size (8.5" x 14") Min: 4.5" x 5.5"
Document thickness	0.07~0.15 mm

EC Declaration of Conformity

According to EN55022 and EN55024

Manufacturer's Name: Minolta-QMS Inc.

Manufacturer's Address: 1 Magnum Pass
Mobile, AL 36618

declare that the product

Model Number : SC-210

conforms to the following Product Specifications:

Emission: EN 50081-1
EN 55022
EN 61000-3-2
EN 61000-3-3

Immunity: EN 55024
IEC 61000-4-2
IEC 61000-4-3
IEC 61000-4-4
IEC 61000-4-5
IEC 61000-4-6
IEC 61000-4-8
IEC 61000-4-11

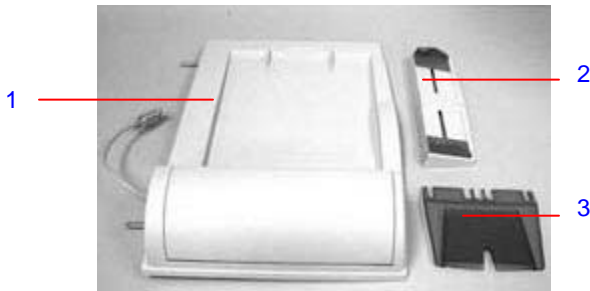
9. SC-210 AUTOMATIC DOCUMENT FEEDER (ADF) USER'S GUIDE

The SC-210 Automatic Document Feeder (ADF) is a convenient addition to your current SC-210. With the ADF, you can automatically copy or scan up to 25 pages at a time.

9.1 INSTALLING THE ADF

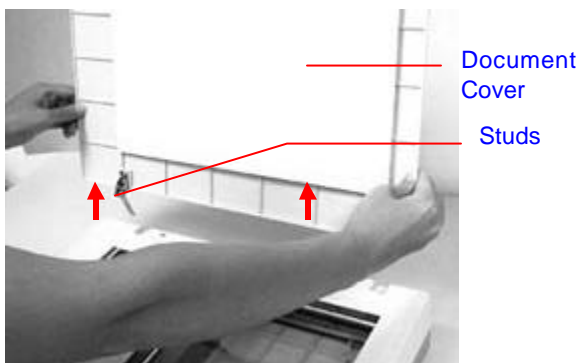
9.1.1 UNPACK THE ADF

1. ADF Document Cover
2. ADF Paper Tray
3. ADF Paper Support



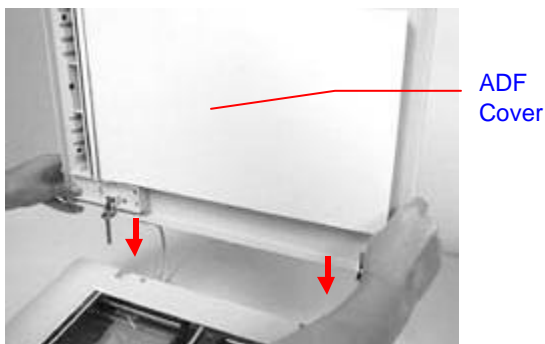
9.1.2 INSTALLING THE ADF

1. Turn off your SC-210. Lock the scanning unit.
2. Disconnect the power cable.
3. Remove the document cover by opening the cover and lifting the studs from the hinge holes at the rear of the SC-210.

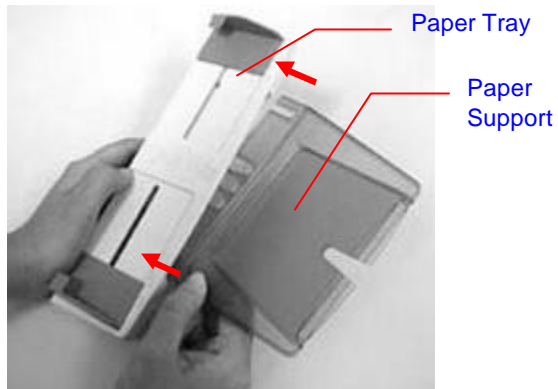


Note: Please store the document cover on a flat surface in a safe place.

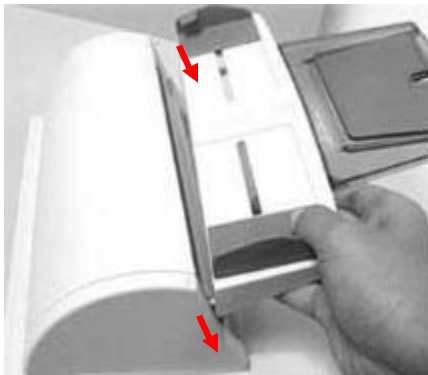
4. Hold the ADF document cover and insert its studs to the hinge holes at the rear of the SC-210.



5. Insert the notched corners of the ADF Paper Support to the clip-joints on the ADF Paper Tray.



6. Insert the notched corners of the ADF Paper Tray into the clip-joints on the ADF document cover.



9.1.3 UNLOCKING THE SC-210

Slide the Lock Switch on the bottom of the SC-210 to unlock the scanning unit.

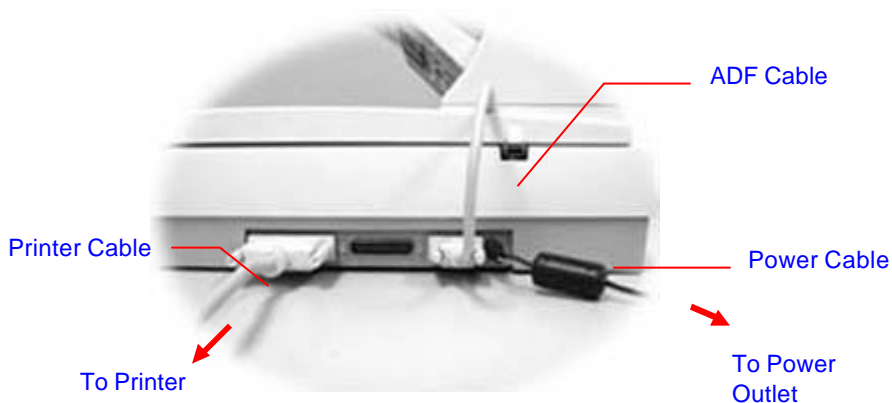


1. "Shipping" Position 2. "Use" Position

9.1.4 CONNECTING THE CABLES

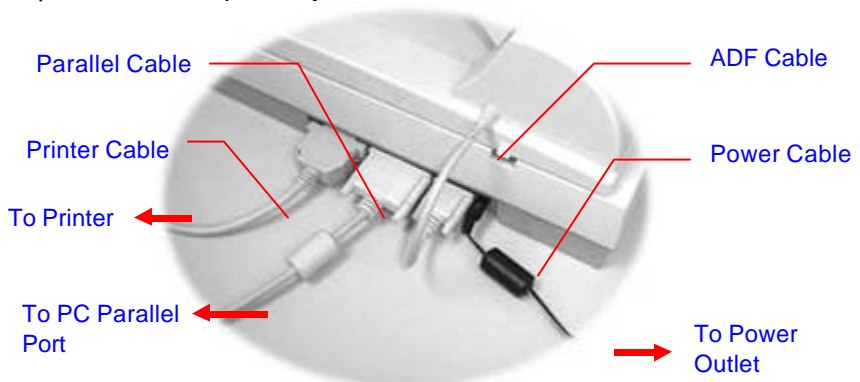
9.1.4.1 Connecting SC-210 to work as a Copier

Connect the ADF cable, the power cable, and the printer cable (not included) respectively.



9.1.4.2 Connecting SC-210 to work as a Scanner

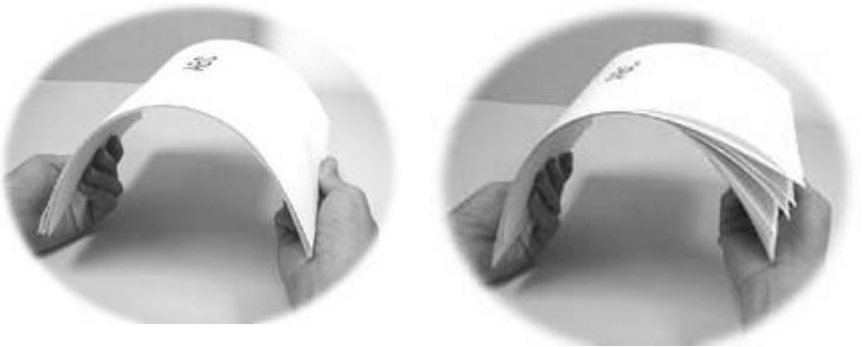
Connect the ADF cable, the power cable, the included parallel cable for connection to the computer, and the included parallel printer cable respectively.



9.2 USING THE ADF

9.2.1 FANNING PAPER BEFORE USAGE

Standard paper should be fed easily. To prevent occasional paper jams when automatically feeding multi-page documents, fan the paper before loading.



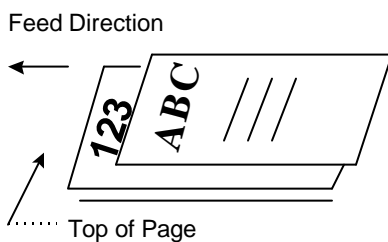
Paper which can not be properly fed by the ADF:

- Paper with clip or staple attached;
- Paper with ink not totally dry;
- Paper with inconsistent thickness, such as envelopes;
- Paper with wrinkles, curls, folds or tears;
- Coated paper;
- Carbonless paper;
- Paper narrower than 4.5" or wider than 8.5"; Shorter than 5" or longer than 14"
- Paper thinner than 0.07mm; thicker than 0.15mm
- Items other than papers, such as cloth, metal or OHP film;
- Notched paper;
- Paper with an odd (non-rectangular) shape;

Please use the flatbed to copy or scan documents that cannot be fed by the ADF.

9.2.2 LOADING THE PAPER

Place your document with the text face up and make the top of the page to the left side as shown below.

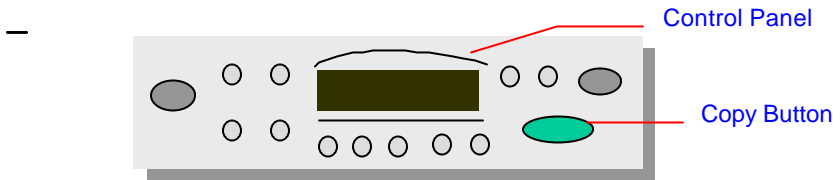


9.2.3 STARTING YOUR FIRST COPY

9.2.3.1 Copying Multi-page Document

After the installation of the ADF unit is completed and you have properly placed a stack of your document on the ADF Paper

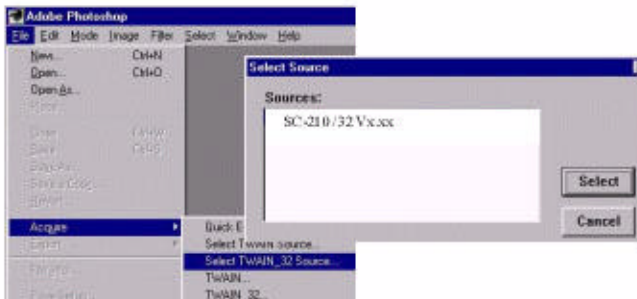
Tray, just a touch of the Copy button on the Control Panel of SC-210, then your task is done in a minute.

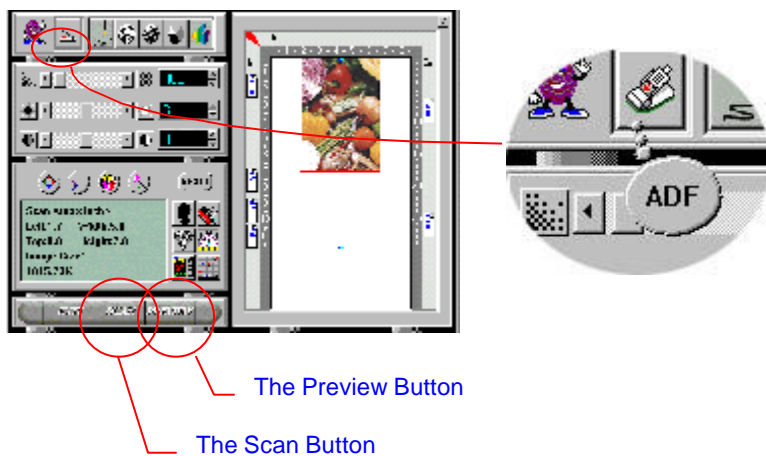


To apply copy features displayed on the Control Panel, please refer to the previous section, *Making Copies with Copy Features*.

9.2.3.2 Scanning Multi-page Document

1. Place your document with the text face up on the ADF Paper Tray.
2. Start your image editing application by clicking the Start button on the task bar and select the name of the application.
3. Choose Acquire from the File menu and click Select TWAIN Source, for example, please select SC-210 V.X.xx. (The command to open the TWAIN source may vary due to different application. Please refer to the user manual of your TWAIN application.)
4. In a minute, the TWAIN window will be displayed.
5. Press the Source button to switch the scanning source to ADF at the top of the TWAIN window.
6. Press the Preview button to get an initial scanned image at a low resolution to allocate your selected scan area.
7. Open the ADF document cover to take out the document and then position it on the first page of the document on the ADF Paper Tray.
8. Finally press the Scan button on the bottom of TWAIN window or the Scan button on the Control Panel.





9.3 MAINTAINING THE ADF

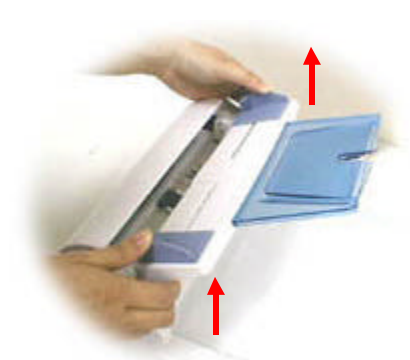
9.3.1 CLEANING THE ADF

The SC-210 is designed to be maintenance free. However, it still needs to be cleaned occasionally to ensure optimum image quality and performance.

From time to time the pad assembly and feeding rollers may become contaminated with ink, toner particles or paper dust. In this case the SC-210 may not feed documents smoothly. If this occurs please follow the cleaning procedures to return your Scanner to its original state.

The cleaning procedures:

1. Moisten a cotton swab with isopropyl alcohol (95%).
2. Gently open the ADF front cover. Wipe the feeding rollers by moving the swab from side to side. Rotate the rollers forward with your finger and repeat the above cleaning procedures until the rollers are clean. Be careful not to snag or damage the pick springs.



3. Wipe the pad in the direction from top to bottom. Be careful not to hook the pick springs.
4. Close the ADF unit. Your SC-210 is now ready for use.



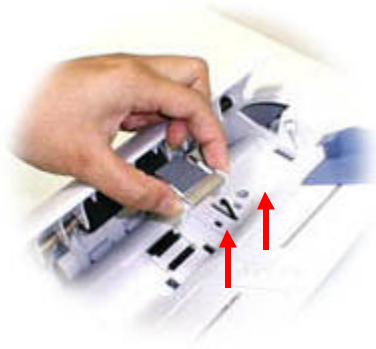
9.3.2 REPLACING THE ADF SNAP-IN PAD MODULE

After scanning approximately 20,000 pages through the ADF, the pad may be worn out and you may experience problems with document feeding. In this case, it is highly recommended to replace the pad module with a new one. For ordering the pad module, please consult your nearest dealer and follow the procedure below to replace it.

Disassembling Procedure

1. Gently open the ADF front cover to the left.
2. Press both arms of the ADF snap-in pad module inwardly with your two fingers to pull out the ADF snap-in pad module.





Assembling Procedure

1. Take out the ADF pad module from the box.
2. Press both arms of the ADF snap-in pad module inwardly with your two fingers
3. Place it into the holes until it snaps into place.



9.4 HOW TO CLEAR THE PAPER JAM

In the event of a paper jam, follow the procedures below to remove the paper:

1. Turn the SC-210 off by disconnecting the power cable.
2. Gently open the ADF front cover to the left.
3. Carefully pull the paper out of the ADF unit.
4. Close the ADF front cover.
5. Turn on the SC-210 by reconnecting the power cable. Your SC-210 is now ready to use.

